

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method for supporting of a plurality of chip rates in a code division multiple access (CDMA) system between a plurality of user equipment (UE) sharing a plurality of timeslots in a frame, the method comprising:

~~transmitting signals in the system in a frame having a plurality of timeslots;~~

~~allocating to a UE operating at least a first one timeslot of the plurality of timeslots in the frame at a first one of the plurality of chip rates based on a chip rate capability of the UE, and~~

~~operating at least a second one of the plurality of timeslots in the frame at a second one of the plurality of chip rates.~~

2. (Currently amended) The method of claim 1 further comprising allocating, by the CDMA system, a timeslot for use by at least one of the plurality of chip rates, wherein the system comprises a 3GPP UMTS system.

3. (Currently amended) The method of claim [[2]] 1 wherein the UE is capable of operating at a plurality of chip rates, 3GPP UMTS system comprises a TDD system.

4. (Currently amended) The method of claim 1 ~~1, 2 or 3~~ wherein the plurality of chip rates are integer multiples of a lowest supported chip rate, of 3.84Meps.

5. (Currently amended) The method of claim 1 ~~[[4]]~~ further comprising autonomously detecting, by the UE, a chip rate of an allocated timeslot, wherein the first one of the plurality of chip rates is substantially 3.84Meps and the second one of the plurality of chip rates is substantially 7.68Meps.

6. (Currently amended) The method of claim 1 ~~any one of claims 1-5~~ wherein the frame comprises beacon data in at least one of the plurality of timeslots.

7. (Currently amended) The method of claim 1 ~~any one of claims 1-6~~ wherein the beacon data is in one of the plurality of timeslots operating at the lowest of the plurality of chip rates.
8. (Currently amended) The method of claim 1 ~~any one of claims 1-5~~ wherein the frame comprises first beacon data in one of the plurality of timeslots operating at the first one of the plurality of chip rates and second beacon data in another of the plurality of timeslots operating at the second one of the plurality of chip rates.
9. (Currently amended) The method of claim 1 ~~any one of claims 1-8~~ wherein the first and second of the plurality of chip rates are controlled independently of each other.
10. (Currently amended) The method of claim 1 ~~any one of claims 1-8~~ wherein the first and second of the plurality of chip rates are commonly controlled.
11. (Currently amended) The method of claim 1 ~~any one of claims 1-10~~ wherein the method comprises transmitting a plurality of instantiations of the at least a first one of the plurality of timeslots in the frame operating at the first chip rate.
12. (Original) The method of claim 11 wherein the plurality of instantiations are separated in the frequency domain.
13. (Currently amended) The method of claim 11 ~~or 12~~ wherein the number of the plurality of instantiations is proportional to the ratio of the bandwidth or the second chip rate system to the bandwidth of the first chip rate system.
14. (Currently amended) The method of claim 1 ~~any one of claims 1-13~~ wherein the first chip rate system operates at substantially the same carrier frequency as the second chip rate system.
15. (Currently amended) The method of claim 1 ~~any one of claims 1-14~~ wherein the method further comprises transmitting to the UE ~~a user~~ parameters of timeslots via broadcast signalling.

16. (Currently amended) The method of claim 15 wherein the system is a UMTS TDD system, and the step of transmitting to the UE ~~a user~~ parameters of timeslots comprises transmitting signals broadcast in system information blocks.
17. (Currently amended) The method of claim 1 ~~any one of claims 1-14~~ wherein the method further comprises transmitting to the UE ~~a user~~ parameters of timeslots via point to point signalling.
18. (Original) The method of claim 17 wherein the point to point signalling defines the timeslot parameters for a single allocation.
19. (Original) The method of claim 17 wherein the point to point signalling defines the timeslot parameters for a multiplicity of allocations.
20. (Original) The method of claim 17 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in radio resource control (RAC) messages.
21. (Original) The method of claim 17 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in medium access control (MAC) messages.
22. (Original) The method of claim 17 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in physical layer messages.
23. (Currently amended) The method of claim 1 ~~any one of claims 1-22~~ wherein the UE ~~user equipment~~ receiving the transmitted frame ~~autonomously determines~~ receives an indication of the chip rate applied in a timeslot.
24. (Currently amended) A code division multiple access (CDMA) system for supporting a plurality of chip rates between a plurality of user equipment (UE) sharing a plurality of timeslots in a frame, the system comprising:

~~means for transmitting signals from a network to user equipment in the system in a frame having a plurality of timeslots;~~

means for allocating to a UE operating at least a first one of the plurality of timeslots in the frame at a first one of the plurality of chip rates based on a chip rate capability of the UE, ~~and~~

~~means for operating at least a second one of the plurality of timeslots in the frame at a second one of the plurality of chip rates.~~

25. (Currently amended) The CDMA system of claim 24 wherein the system allocates a timeslot for use by at least one of the plurality of chip rates, ~~comprises a 3GPP UMTS system,~~

26. (Currently amended) The CDMA system of claim 24 ~~[[25]]~~ wherein the UE is capable of operating at a plurality of chip rates, ~~3GPP UMTS system comprises a TDD system,~~

27. (Currently amended) The CDMA system of claim 24 ~~claim 24, 25 or 26~~ wherein the plurality of chip rates are integer multiples of a lowest supported chip rate, ~~substantially 3.84Meps,~~

28. (Currently amended) The CDMA system of claim 24 ~~claim 27~~ wherein the UE autonomously detects a chip rate of an allocated timeslot, first one of the plurality of chip rates is substantially 3.84Meps and the second one of the plurality of chip rates is substantially 7.68Meps.

29. (Currently amended) The CDMA system of claim 24 ~~any one of claims 24-28~~ wherein the frame comprises beacon data in at least one of the plurality of timeslots.

30. (Currently amended) The CDMA system of claim 24 ~~any one of claims 24-29~~ wherein the beacon data is in one of the plurality of timeslots operating at the lowest of the plurality of chip rates.

31. (Currently amended) The CDMA system of claim 24 ~~any one of claims 24-28~~ wherein the frame comprises first beacon data in one of the plurality of timeslots operating at the first one of the plurality of chip rates and second beacon data in another of the plurality of timeslots operating at the second one of the plurality of chip rates.

32. (Currently amended) The CDMA system of claim 24 ~~any one of claims 24-31~~ wherein the first and second of the plurality of chip rates are controlled independently of each other.
33. (Currently amended) The CDMA system of claim 24 ~~any one of claims 24-31~~ wherein the first and second of the plurality of chip rates are commonly controlled.
34. (Currently amended) The CDMA system of claim 24 ~~any one of claims 24-33~~ wherein the means for transmitting signals from a network to user equipment in the system comprises means for transmitting a plurality of instantiations of the at least a first one of the plurality of timeslots in the frame operating at the first chip rate.
35. (Original) The CDMA system of claim 34 wherein the plurality of instantiations are separated in the frequency domain.
36. (Currently amended) The CDMA system of claim 34 ~~or 35~~ wherein the number of the plurality of instantiations is proportional to the ratio of the bandwidth of the second chip rate system to the bandwidth of the first chip rate system.
37. (Currently amended) The CDMA system of claim 24 ~~any one of claims 24-36~~ wherein the first chip rate system operates at substantially the same carrier frequency as the second chip rate system.
38. (Currently amended) The CDMA system of claim 24 ~~any one of claims 24-37~~ wherein the system further comprises means for transmitting to the UE ~~user~~ parameters of timeslots via broadcast signalling.
39. (Currently amended) The CDMA system of claim 38 wherein the system is a UMTS TDD system, and the means for transmitting to the UE ~~user~~ parameters of timeslots comprises means for transmitting signals broadcast in system information blocks.

40. (Currently amended) The CDMA system of claim 24 ~~any one of claims 24-37~~ wherein the system further comprises means for transmitting to the UE user parameters of timeslots via point to point signalling.

41. (Original) The CDMA system of claim 40 wherein the point to point signalling defines the timeslot parameters for a single allocation.

42. (Original) The CDMA system of claim 40 wherein the point to point signalling defines the timeslot parameters for a multiplicity of allocations.

43. (Original) The CDMA system of claim 40 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in radio resource control (RRC) messages.

44. (Original) The CDMA system of claim 40 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in medium access control (MAC) messages.

45. (Original) The CDMA system of claim 40 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in physical layer messages.

46. (Currently amended) The CDMA system of claim 24 ~~any one of claims 24-45~~ wherein the UE user equipment is adapted to ~~autonomously determine~~ receive an indication of the chip rate applied in a timeslot.

47. (Currently amended) A base station for use in a code division multiple access (CDMA) system supporting a plurality of chip rates between a plurality of user equipment (UE) sharing a plurality of timeslots in a frame, the base station comprising:

~~means for transmitting signals from the base station to user equipment in the system in a frame having a plurality of timeslots;~~

means for allocating to a UE operating at least a first one timeslot of the plurality of timeslots in the frame at a first one of the plurality of chip rates based on a chip rate capability of the UE; and

~~means for operating at least a second one of the plurality of timeslots in the frame at a second one of the plurality of chip rates.~~

48. (Currently amended) The base station of claim 47 wherein the base station allocates a timeslot for use by at least one of the plurality of chip rates. system comprises a 3GPP UMTS system.

49. (Currently amended) The base station of claim 47 ~~[[48]]~~ wherein the UE is capable of operating at a plurality of chip rates. 3GPP UMTS system comprises a TDD system.

50. (Currently amended) The base station of claim 47 ~~claim 47, 48 or 49~~ wherein the plurality of chip rates are integer multiples a lowest supported chip rate. ~~of substantially 3.84Meps.~~

51. (Currently amended) The base station of claim 47 ~~[[50]]~~ wherein the UE autonomously detects a chip rate of an allocated timeslot. ~~first one of the plurality of chip rates is substantially 3.84Meps and the second one of the plurality of chip rates is substantially 7.68Meps.~~

52. (Currently amended) The base station of claim 47 ~~any one of claims 47-51~~ wherein the frame comprises beacon data in at least one of the plurality of timeslots.

53. (Currently amended) The base station of claim 47 ~~any one of claims 47-52~~ wherein the beacon data is in one of the plurality of timeslots operating at the lowest of the plurality of chip rates.

54. (Currently amended) The base station of claim 47 ~~any one of claims 47-51~~ wherein the frame comprises first beacon data in one of the plurality of timeslots operating at the first one of the plurality of chip rates and second beacon data in another of the plurality of timeslots operating at the second one of the plurality of chip rates.

55. (Currently amended) The base station of claim 47 ~~any one of claims 47-54~~ wherein the first and second of the plurality of chip rates are controlled independently of each other.
56. (Currently amended) The base station of claim 47 ~~any one of claims 47-54~~ wherein networks of the first and second of the plurality of chip rates are commonly controlled.
57. (Currently amended) The base station of claim 47 ~~any one of claims 47-56~~ wherein the means for transmitting signals from the base station to the UE ~~user equipment~~ in the system comprises means for transmitting a plurality of instantiations of the at least a first one of the plurality of timeslots in the frame operating at the first chip rate.
58. (Original) The base station of claim 57 wherein the plurality of instantiations are separated in the frequency domain.
59. (Currently amended) The base station of claim 57 ~~or 58~~ wherein the number of the plurality of instantiations is proportional to the ratio of the bandwidth of the second chip rate system to the bandwidth of the first chip rate system.
60. (Currently amended) The base station of claim 47 ~~any one of claims 47-59~~ wherein the first chip rate system operates at substantially the same carrier frequency as the second chip rate system.
61. (Currently amended) The base station of claim 47 ~~any one of claims 47-60~~ wherein the base station further comprises means for transmitting to the UE ~~user~~ parameters of timeslots via broadcast signalling.
62. (Currently amended) The base station of claim 61 wherein the system is a UMTS TDD system, and the means for transmitting to the UE ~~user~~ parameters of timeslots comprises means for transmitting signals broadcast in system information blocks.
63. (Currently amended) The base station of claim 47 ~~any one of claims 47-60~~ wherein the base station further comprises means for transmitting to the UE ~~user~~ parameters of timeslots via point to point signalling.

64. (Original) The base station of claim 63 wherein the point to point signalling defines the timeslot parameters for a single allocation.

65. (Original) The base station of claim 63 wherein the point to point signalling defines the timeslot parameters for a multiplicity of allocations.

66. (Original) The base station of claim 63 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in radio resource control (RRC) messages.

67. (Original) The base station of claim 63 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in medium access control (MAC) messages.

68. (Original) The base station of claim 63 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in physical layer messages.

69. (Currently amended) User equipment (UE) for use in a CDMA system supporting a plurality of chip rates within a plurality of timeslots in a frame, the user equipment comprising:

means for receiving a signal signals from a base station directing the UE to at least one timeslot of the plurality of timeslots supporting one of the plurality of chip rates based on a chip rate capability of the UE. in a frame having a plurality of timeslots, at least a first one of the plurality of timeslots in the frame being operated at a first one of the plurality of chip rates, and at least a second one of the plurality of timeslots in the frame being operated at a second one of the plurality of chip rates.

70. (Currently amended) The UE user equipment of claim 69, further comprising:

means for detecting in the received frame predetermined information in one of the plurality of timeslots at the first one of the plurality of chip rates; and

means for transmitting a signal to the base station indicating that the user equipment is able to operate at the second one of the plurality of chip rates.

71. (Currently amended) The UE user equipment of claim 70, wherein the means for transmitting a signal to the base station comprises means for transmitting a signal to the base station indicating that the user equipment is able to operate at both the first one of the plurality of chip rates and the second one of the plurality of chip rates.
72. (Currently amended) The UE user equipment of ~~claim 69~~ claim 69, 70 or 71 wherein the UE is directed to a lowest supported chip rate timeslot, ~~system comprises a 3GPP UMTS system.~~
73. (Currently amended) The UE user equipment of claim 69 ~~[[72]]~~ wherein the UE is capable of operation in a TDD 3GPP UMTS system ~~comprises a TDD system.~~
74. (Currently amended) The UE user equipment of ~~claim 69~~ any one of claims 69-73 wherein the plurality of chip rates are integer multiples of the lowest supported chip rate, ~~substantially 3.84Meps.~~
75. (Currently amended) The UE user equipment of claim 74 wherein the first one of the plurality of chip rates is substantially 3.84Meps and the second one of the plurality of chip rates is substantially 7.68Meps.
76. (Currently amended) The UE user equipment of ~~claim 70~~ any one of claims 70-74 wherein the predetermined information comprises beacon data.
77. (Currently amended) The UE user equipment of claim ~~[[75]]~~ 76 wherein the beacon data is in one of the plurality of timeslots operating at the lowest of the plurality of chip rates.
78. (Currently amended) The UE user equipment of ~~claim 69~~ any one of claims 69-77 wherein networks of the first and second of the plurality of chip rates are controlled independently of each other.
79. (Currently amended) The UE user equipment of ~~claim 69~~ any one of claims 69-77 wherein networks of the first and second of the plurality of chip rates are commonly controlled.

80. (Currently amended) The UE user equipment of claim 69 ~~any one of claims 69-79~~ wherein the user equipment is adapted to receive in the same frame the timeslots at a higher chip rate and the timeslots at a lower chip rate.
81. (Currently amended) The UE user equipment of claim 69 ~~any one of claims 69-80~~ wherein the first chip rate system operates at substantially the same carrier frequency as the second chip rate system.
82. (Currently amended) The UE user equipment of claim 69 ~~any one of claims 69-81~~ further comprising means for receiving from the base station parameters of timeslots via broadcast signalling.
83. (Currently amended) The UE user equipment of claim 82 wherein the system is a UMTS TDD system, and the means for receiving from the base station parameters of timeslots comprises means for receiving signals broadcast in system information blocks.
84. (Currently amended) The UE user equipment of claim 69 ~~any one of claims 69-82~~ further comprising means for receiving from the base station parameters of timeslots via point to point signalling.
85. (Currently amended) The UE user equipment of claim 84 wherein the point to point signalling defines the timeslot parameters for a single allocation.
86. (Currently amended) The UE user equipment of claim 84 wherein the point to point signalling defines the timeslot parameters for a multiplicity of allocations.
87. (Currently amended) The UE user equipment of claim 84 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in radio resource control (RRC) messages.

88. (Currently amended) The UE user equipment of claim 84 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in medium access control (MAC) messages.

89. (Currently amended) The UE user equipment of claim 84 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in physical layer messages.

90. (Currently amended) The UE user equipment of claim 69 ~~any one of claims 69-89~~ wherein the user equipment is adapted to autonomously determine the chip rate applied in a timeslot.

91. (Currently amended) A computer-readable medium program element comprising computer instructions ~~program means~~ for performing substantially the method of claim 1 ~~any one of claims 1-23~~.

92. (Currently amended) An integrated circuit comprising ~~substantially the means for transmitting signals, the means for operating at least a first one of the plurality of timeslots, and the means for operating at least a second one of the plurality of timeslots~~ the means for allocating to a UE at least one timeslot of the plurality of timeslots in the frame at one of the plurality of chip rates based on a chip rate capability of the UE in the base station of claim 47, any one of claims 47-23, or ~~comprising substantially the means for receiving signals in the user equipment of any one of claims 69-90.~~

93. (New) An integrated circuit comprising the means for receiving a signal from a base station directing the UE to at least one timeslot of the plurality of timeslots supporting one of the plurality of chip rates based on a chip rate capability of the UE of claim 69.